Fishers Robotics

NEWSLETTER

January 19, 2019

Build Season Has Started!

Progress

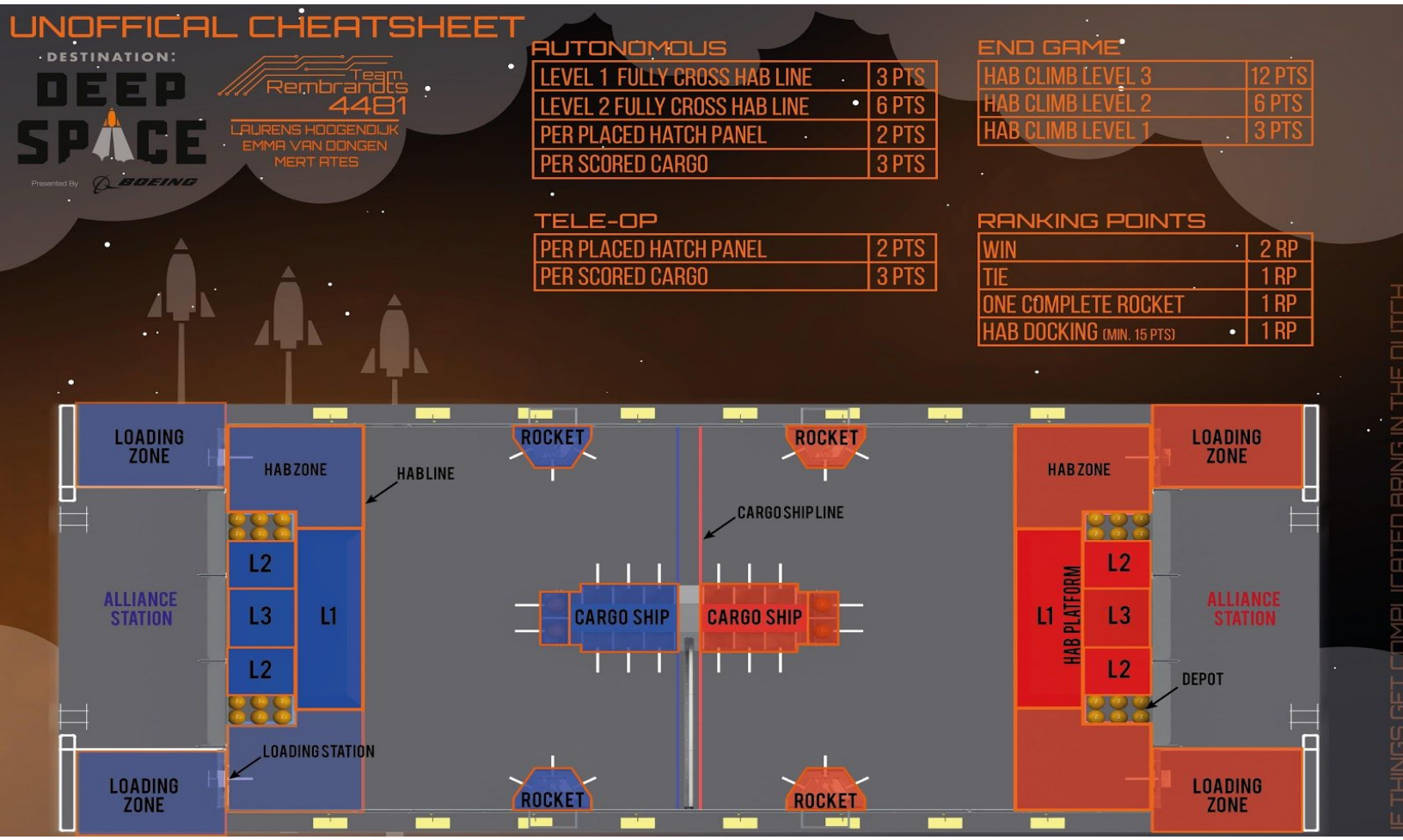
FIRST Robotics had launched its game for the 2018-2019 season. For the two past weeks, we've been brainstorming ideas for how to beat our competitors and become valuable to our allies. We've come up with a high-low hatch and high-low ball robot with the possibility of climbing to tier two by using pneumatics, and our intake is a hybrid two-one. We decided to split our team up into different groups so there's not too many members focusing on one aspect of our machine. Our CAD team has started to create a model of the final product, and has continued to make progress. Our Field team has also been re-creating the practice field for when we do start building. The programming team is working on vision, LimeLight, and GitHub to further inhance it. Also, they have finished programming the drive train. As for the drivetrain team, we have built the Competition base drivetrain. Finally Fabrication, we have practiced more on the vertical mill.

This year's Game

For those who don't know what this year's competition is, here's a quick rundown. Before the game starts, two teams *(Also known as alliances)* start opposite sides of the field. Each team has a cargo ship, two rockets, and a habitat*(HAB)*. Members on each team choose to pre-load either a ball *(Also known as Cargo)* or a hatch onto the cargo ship and/or the robot itself. Everyone's robots start in the habitat on either tier one or tier two. For the first fifteen seconds of the round, the driver's vision is blocked by a sheet representing a waning sandstorm. This is when the robots use either autonomous code or a vision system to go manually around the field. After fifteen seconds, the sheet comes up, and the driver's vision is restored allowing them to score more points. Here's how the points are scored:

- 3 pts per robot crossing the HAB LINE = 9 pts max
- 6 per robot driving off platform = 12 pts max
- 40 pts for hatches
- 60 pts for cargo
- 30 pts per rocket
- 40 points for cargo ship
- 24 (30) points max for HAB end

At the last thirty seconds of the match, the robots must return to the HAB. Players have a choice of climbing to an elevated surface for more points. Climbing to either tier two or tier three can also get you a ranking point, which helps you in the qualifying rounds of the competition. Tier two is six inches off of tier one, and tier three is a foot seven inches off of the ground. With that, the match ends. Two ranking points go to the winning alliance, or one for each alliance if they tie. There's also a ranking point for an alliance if they fill one of the two rockets up with hatches and cargo.



We Thank You for Your Support and We Hope to Stay in Contact to Update You on What 5010 is up to!